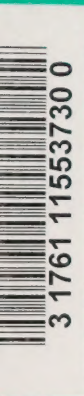


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FUNDING OF ENVIRONMENTAL IMPACT ASSESSMENT RESEARCH IN CANADA

Acres International Limited

Funding of Environmental Impact Assessment Research in Canada

Acres International Limited



A Background Paper Prepared for
the Canadian Environmental Assessment
Research Council



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FOREWORD

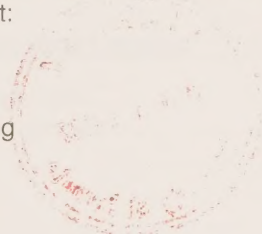
The Canadian Environmental Assessment Research Council (CEARC) was established on January 30, 1984 by the federal Minister of the Environment to advise government, industry and universities on ways to improve the scientific, technical and procedural basis for environmental impact assessment (EIA) in Canada.


The purpose of commissioning this paper, and indeed of all the other CEARC-sponsored background documents, is to provide relevant information and to stimulate discussion on the topics of interest to the EIA community. The opinions expressed, however, are strictly the authors' own and do not necessarily reflect the views of the members of the Council or its Secretariat.

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PREFACE

Acres International Limited was awarded a contract by Environment Canada to identify current and potential funding sources for environmental impact assessment (EIA) and social impact assessment (SIA) research in Canada. The objective was to assist the Canadian Environmental Assessment Research Council (CEARC) in determining the potential for cofunding of EIA and SIA research.

For the purpose of this study the terms EIA and SIA include the following activities:

- incorporation of EIA and SIA into decision making by government and proponents;
- institutional management of EIA and SIA;
- biological, physical and chemical effects resulting from project development;
- economic and social implications of project development; and
- mitigative measures and monitoring programs to measure impacts and effectiveness of mitigative measures.

The study was limited to Canadian funding sources for non project-specific EIA and SIA research. Seventy-two Canadian organizations were contacted comprising federal and provincial agencies as well as public interest groups, industries, and academic institutions. Seventy-two organizations were the maximum number of contacts possible given the available budget. The survey took place during February and March 1986.

The balance of the text is divided into three chapters. Chapter 1 discusses the study methodology and contains sections dealing with the identification of funding sources, questionnaire design, preliminary survey and refinement of the contact list. Chapter 2 describes the survey results by major categories such as federal and provincial agencies, industry, public interest groups and academic institutions. A brief description of a similar survey is included. Chapter 3 discusses the conclusions and recommendations.

The assistance of Robert Weir (Chief) and Kathleen Rothwell (Scientific Authority) of the Environmental Impact Systems Division, Environment Canada, in preparing this document is gratefully acknowledged.

The co-operation and assistance received from staff of the various organizations contacted during this research funding survey is very much appreciated.

EXECUTIVE SUMMARY

The purpose of this study was to identify current and potential funding sources for environmental impact assessment (EIA) and social impact assessment (SIA) research in Canada. The objective was to assist the Canadian Environmental Assessment Research Council (CEARC) in determining potential cofunding sources for EIA and SIA research.

The study was limited to potential funding sources for non project-specific EIA and SIA research. A telephone survey was conducted of 72 Canadian organizations comprising federal and provincial government agencies, industries, public interest groups, and academic institutions.

Out of 72 organizations surveyed, 58 (81%) are interested in cofunding or providing support facilities for EIA/SIA research projects. Federal and provincial government agencies, as well as industry associations are the most promising potential funding sources for EIA/SIA research of a non project-specific nature. Private foundations and national wildlife organizations are the most promising sources of funding in the public interest group sector. Universities generally have no funds for co-operative EIA/SIA research efforts but can provide support facilities.

As a result of this study, we recommend that CEARC:

- communicate with the Canadian Council of Resource and Environment Ministers prior to any further studies of this nature to determine the results of their research funding survey;
- consider expanding this research survey to include additional potential funding sources identified during this study and other known potential funding sources;
- include the waste management industry in any future research funding survey in view of the recent interest in EIA research in this area; and
- computerize the results contained in this report to provide more flexibility in accessing and updating the data by agency type, area of research interest, project type, and so forth.

1. STUDY METHODOLOGY

The study methodology involved development of a contact list and questionnaire for use in a telephone survey of potential funding sources. These tasks are described in more detail below.

Identification of Funding Sources

A list of potential funding sources was developed using the following resources:

- discussions with the Scientific Authority within the Environmental Impact Systems Division of Environment Canada;
- published directories of environmental research, i.e.,
 - The *Environmental Research Directory* of the Alberta Environmental Research Trust,
 - The Canadian Electrical Association's *Digest of Electric Utility Related Research in Canada*,
 - *Who to Contact for Research Funding Assistance from the Alberta Government in Agriculture, Engineering and the Natural Sciences* (Government of Alberta 1984),
 - Environment Canada's *Environment Source Book*,
 - Ontario Ministry of the Environment's *Inventory of Research and Development Projects*, and
 - Environmental Conservation Service's *Baseline Studies Program, Fiscal Year 1984/85*;
- computerized research directories, i.e.,
 - The Canadian Plains Research Center's CANPLAINS Database, and
 - The *Directory of Federally Supported Research in Universities 1984-85* (CISTI 1985);
- consultations with managers in government, industry and public interest groups who are involved in EIA/SIA research; and
- personal knowledge of promising EIA/SIA research funding contacts in government, industry and public interest groups.

Following completion of the above subtasks a preliminary contact list of potential funding sources was developed as shown in Appendix A-I. It comprised 21 federal government agencies, 20 provincial government agencies, 11 industry associations, 12 public interest groups, and 8 academic institutions.

Questionnaire Design

A questionnaire (Appendix B) was then designed as a guide for use in the telephone survey. It was intended to address the six broad areas of research of interest to CEARC, i.e.,

- prediction and monitoring,
- risk analysis,
- EIA, management, and decision making,
- improvements in administrative procedures,
- mitigation and compensation, and
- post-project evaluation.

In addition to the basic question of whether an organization was interested in cofunding of EIA/SIA research projects, the questionnaires also addressed such issues as the type of funding support available, funding constraints, currently funded environmental studies of a non project-specific nature and future areas of emphasis in EIA/SIA research.

Preliminary Survey

A preliminary survey of 22 of the 72 organizations was conducted to obtain an indication of the responses and to allow refinement of the questionnaire and contact list. A balanced mix of organizations was selected from all five categories (i.e., provincial and federal governments, industry, public interest groups, and universities). The organizations contacted in this preliminary survey and a brief summary of results are presented in Appendix C.

Refinement of Contact List and Completion of Telephone Interviews

The preliminary survey indicated that federal and provincial government agencies, and industry, were the most promising sources for cofunding of EIA/SIA research. Following discussions with the Scientific Authority it was decided to drop further contact with the academic institutions and to expand the number of contacts made to provincial government and/or industry sources. The final contact list is presented in Appendix A-2 and comprises 19 federal government agencies, 26 provincial agencies, 11 industry affiliations, 12 public interest groups, and 4 academic institutions.

2. SURVEY RESULTS AND DISCUSSION

Appendix A-2 identifies all the organizations surveyed and indicates those with an interest in cofunding and those which have no funding support available whatsoever.

Out of 72 organizations surveyed, 58 are interested in cofunding or providing support facilities for EIA/SIA research projects and this is further broken down by category in Table 1.

It was also apparent that current and future areas of priority within the federal government agencies surveyed will emphasize EIA research rather than SIA research. A notable exception is the Social Sciences and Humanities Research Council of Canada which provides grants pertaining to the social side of ecological and other issues.

Three federal agencies out of 19 surveyed were not in a position to provide any type of support for cofunding of EIA/SIA research.

Table 1
Funding Sources for EIA/SIA Research by Sector

| Agency Type | Interest in Cofunding | No funding Support | Totals |
|------------------------|-----------------------|--------------------|--------|
| Federal government | 16 | 3 | 19 |
| Provincial government | 25 | 1 | 26 |
| Industry | 9 | 2 | 11 |
| Public Interest Groups | 7 | 5 | 12 |
| Academic Institutions | 1 | 3 | 4 |
| Total (% of Total) | 58 (81%) | 14 (19%) | 72 |

With regard to the 58 agencies identified above, 48 have funds for EIA/SIA research while the other 10 agencies can provide only support facilities. Further details on each agency, including areas of research interest and funding constraints are provided by sector in Table 2 at the end of this section. It is emphasized that this table is not a comprehensive listing of potential funding sources for EIA/SIA research in Canada. Time and budget considerations limited the number of organizations surveyed for this study. However, additional promising contacts came to light during the survey and these are listed in Appendix A-3.

Further details on funding activities by sector are provided below.

Federal Government Agencies

Out of 19 federal government agencies surveyed, 16 indicated an interest in cofunding as described in Table 2. Co-operative efforts between federal agencies are commonplace, although many of these identified funding constraints. These were primarily related to the scope of their mandate, i.e., the oil and gas industry, fish habitat management, health effects, and so forth.

- The Land Resource Research Institute of Agriculture Canada advised that due to recent cutbacks associated with contract research, it would no longer be able to participate in cofunding or provide staff support for EIA/SIA projects.
- The Environmental Secretariat at the National Research Council of Canada (NRC) was cut in November 1984, and the 20 staff within this secretariat ceased all activities as of March 31, 1986. The Division of Biological Sciences within NRC now has a very narrow scope and is not involved in environmental research nor is it interested in cofunding of such projects.
- Public Works Canada advised that their studies are typically project-specific EIAs and are dependent for the most part on revenue from other agencies. However, they do have an interest in ensuring that their screening process becomes effective. In this respect they could be interested in looking at the Environmental Assessment and Review Process (EARP) with a view to seeing how it works and how the public responds to it. Perhaps as their attitude toward EIA changes, Public Works could eventually play a more active role in EIA/SIA research.

Provincial Government Agencies

Twenty-five out of 26 provincial government agencies contacted expressed an interest in cofunding of EIA/SIA research or in the provision of support facilities for such projects (see Table 2). Most would have funds available for research of mutual interest except for the provincial research councils which, like private consultants, operate on a contract basis and provide only support facilities (staff and laboratories).

Co-operative funding between the federal and provincial governments usually requires a federal-provincial agreement. For this reason it is likely that two levels of contact will be required in order to identify programs of mutual interest and to secure funding. An initial contact will be necessary at the technical research management level to identify EIA/SIA research projects for cofunding. Once this has been decided and a level of effort determined, federal and provincial deputy ministers would likely have to approve funding for the proposed co-operative efforts if a federal provincial agreement were not already in place. In at least one instance, in Manitoba, a Federal Provincial Liaison Committee is already in existence which includes a representative from Environment Canada. In Manitoba's case, the Liaison Committee meets biweekly to discuss areas of mutual co-operation.

In Quebec, four provincial agencies expressed an interest in federal-provincial co-operation on EIA/SIA research, i.e., Environment Quebec, the Quebec Ministry of Agriculture and Fisheries, the Quebec Ministry of Energy, Mines and Resources, and Quebec Recreation, Game and Fish.

Only one provincial agency contacted advised that they do not get involved in EIA/SIA research. This was the Environmental Assessment Branch of the Ontario Ministry of the Environment (MOE) which deals with legislative aspects as well as the review and approval of environmental assessments. Within MOE the Policy and Planning Branch has a Research Co-ordination Unit which is primarily involved with prediction/monitoring and risk analysis components of EIA and which does have an interest in cofunding.

Industry

Nine of the 11 industry contacts expressed an interest in cofunding of EIA research. The areas and extent of research interest are described in Table 2. As might be expected, industry is geared toward the physical side of impact assessment rather than social issues.

Industry associations often take on the responsibility of contracting out non project-specific research for their association members. The Canadian Electrical Association, the Canadian Petroleum Association, and the Petroleum Association for Conservation of the Canadian Environment (PACE) all do so.

The Institute for Chemical Science and Technology was recently created by four member companies (Polysar, Esso Chemical, CIL, and Dow) to oversee research in the chemical and petroleum processing industries. Any cofunding requests

pertaining to EIA research projects in this area should, therefore, be directed to the Institute, or to Dow Chemical in Sarnia who have previously cofunded with Environment Canada on projects of mutual interest.

Occasionally, other private companies will cofund with federal agencies on environmental studies, for example, Union Gas Limited and Gulf Canada Resources Inc.; but it appears more common to have industry associations take the lead role when it comes to non project-specific environmental research.

The two industry associations expressing no interest in cofunding of EIA/SIA research were the Canadian Forestry Association and the Canadian Gas Association.

Public Interest Groups

Out of 12 public interest groups surveyed, 7 had an interest in cofunding; these are listed in Table 2.

Generally, private foundations are the most promising funding sources in this sector, although some may have a requirement that projects be steered by a registered charitable organization.

There are also some significant conservation groups, for example, the World Wildlife Fund and Ducks Unlimited, which have substantial resources available for research, although certain restrictions are placed on the use of these funds (see Table 2).

Provincial wildlife associations tend to rely on association memberships and external grants, and it is unlikely that they would have funds or facilities to participate in cofunding of EIA/SIA research. Similarly, the Federation of Associations on the Canadian Environment and Provincial Conservation Councils rely entirely on external support and have no funds or facilities to participate in cofunding of EIA/SIA research.

Academic Institutions

The survey was limited to four universities (listed in Appendix A-2) due to the poor result of the preliminary survey for this sector (see Appendix C) and the knowledge that universities generally depend on external funding for their research activities.

Out of the four universities surveyed, only McGill expressed an interest in cofunding (through provision of support facilities). The Centre for Northern Studies at McGill University participates with other agencies in EIA research by offering their laboratory facilities and staff at Schefferville, Quebec for programs of mutual interest.

Similar co-operative efforts may also be possible at other universities where environmentally related research facilities are available; for example, Centre de recherches en aménagement et développement (Université Laval), Kananaskis Centre for Environmental Research (University of Calgary), or Westwater Research Centre (University of British Columbia).

Other Environmental Research Surveys

During the course of this survey it became apparent that a similar research funding survey had already been initiated by the Canadian Council of Resource and Environment Ministers (CCREM).

The Council established a Committee on Research Coordination at their annual meeting in Toronto in 1985 whose mandate is to promote more cost-effective spending on research and development activities in the area of environmental protection research. As a first step they have asked their participating members to prepare an inventory of such activities within their jurisdictions, giving budget and contact person.

There is clearly a potential for overlap between the two surveys although it is important to note that the CCREM effort is primarily oriented toward government agencies and does not include the private sector. The Council anticipates publishing its inventory by the summer of 1986 and is now considering a similar effort in the field of environmental conservation research and development. When asked about their interest in EIA/SIA research, the Council indicated that it was uncertain about how to proceed at this time but was thinking of including it as part of the study on environmental conservation. The Draft Terms of Reference for the Committee are given in Appendix D.

The only other research survey that came to light is one carried out by the Association of Canadian Universities and Colleges of Canada, 151 Slater Street, Ottawa, (613) 563-1236. This association produces a directory of Canadian granting foundations which is updated on a regular basis.

TABLE 2

TABLE 2

Summary of Potential Funding
Sources for EIA/SIA Research

| Agency | Contact | Area of Research Interest | Recent Projects |
|--|--|---|---|
| Federal Agencies | | | |
| Agriculture Canada Canadian Forestry Services Hull, Quebec J8Y 3Z4 | Dr. L. W. Carison Director, Research Research and Technical Services Directorate (819) 997-1107 | Prediction and monitoring Improvements in administra- tive procedures Mitigation and compensation | Acid rain program Moose habitat studies Pesticide registration |
| Energy, Mines and Resources Office of Environmental Affairs Ottawa, Ontario K1A 0E4 | J. D. McTaggart-Cowan Director, Office of Environ- mental Affairs (613) 992-9924 | Prediction and monitoring Risk analysis EIA management and decision making Mitigation Post-project evaluation | Alternate energy futures (with Environment Canada) |
| Environment Canada Atmospheric Environment Service Ottawa, Ontario K1A 0H3 | R. V. Horne EARP Coordinator (819) 997-6725 | Prediction and monitoring | Provision of climatology related to wind, tempera- tures, precipitation, sea ice and icebergs |
| Environment Canada Environmental Impact Sys- tems Division Hull, Quebec K1A 0H3 | R. H. Weir Chief (819) 997-1731 | Prediction and monitoring EIA management and decision making Post-project evaluation | National inventory of biologi- cal effects monitoring |
| Environment Canada Federal Environmental Assessment Review Office Hull, Quebec K1A 0H3 | Dr. G. Beanlands Director of Research (819) 997-1000 | Prediction and monitoring Risk analysis EIA management and decision making Improvements in administra- tive procedures Mitigation and compensation Post-project evaluation | Post-audit studies Cumulative EIA/SIA |
| Environment Canada Lands Directorate Hull, Quebec K1A 0H3 | E. B. Wiken, Chief, - Ecological Research and Inte- grated Programs Division (819) 997-2321 | Prediction and monitoring EIA management and decision making Mitigation | Ecological Land Survey guide- lines (prepared for FEARO) |
| Environment Canada (Parks) Natural Resources Branch Hull, Quebec K1A 1G2 | Dave Lohnes Director (819) 994-3244 | Prediction and monitoring Mitigation Post-project evaluation | EIA of linear development (e.g., twinning of Trans- Canada Highway) |
| Fisheries and Oceans Canada Fish Habitat Management Branch Ottawa, Ontario K1A 0E6 | Sandy Lewis (Freshwater and Arctic Habitat) (613) 990-0185 Karen Brown (Marine Habitat) (613) 990-0207 | Prediction and monitoring Improvement in administrative procedures | EIA Monitoring |
| Fisheries Research Directorate Fisheries and Oceans Canada Ottawa, Ontario K1A 0E6 | Dr. Barry Muir Director General (613) 990-0271 | Prediction and monitoring | Effects of acid rain on the eco- system Cancer development in fish populations of the Great Lakes from industrial waste discharges |

| Future areas of Interest | Type of Funding Support ¹ | Funding Constraints (and other notes) |
|---|--------------------------------------|---|
| Acid rain program Wildlife habitat studies Pesticide registration | C | CFS Interest |
| No priority areas specified | C | Must be of a practical nature, incorporating engineering and economic components as well as environmental aspects |
| None specified | P,S | Relevance to AES |
| Followup, prediction, cumulative impact assessment | C | Submit applications in first quarter of fiscal year (Apr.-June); will consider unsolicited proposals anytime |
| | C | Specific to EIA/SIA |
| Ecological boundary implications for EIA | C,P,S | Restricted to priority areas established for each fiscal year |
| Post-project monitoring | C | |
| Predictive capabilities of EIA Cumulative effects Effects of interjurisdictional legislative approvals on EIA | C | Application to fish habitat management. Apply before summer for small projects; Apply by Sept. for large or long-term projects for next fiscal year |
| Acid rain Toxic chemicals | P,S | Must be fisheries related |

TABLE 2—Continued

| Agency | Contact | Area of Research Interest | Recent Projects |
|--|---|---|---|
| Health and Welfare Canada National Health Research and Development Program Ottawa, Ontario K1A 1B4 | Dr. R. A. Heacock Extramural Research Program (613) 954-8538 | Risk analysis | None specified |
| Indian and Northern Affairs Resource Development Direc- torate Hull, Quebec K1A 0H4 | Duncan Marshall, Director Resource Development Impacts (819) 997-2752 | Mitigation and compensation Public participation | Hazardous waste cleanup in Ontario Indian communities Public hearing interventions |
| Indian and Northern Affairs Northern Policy and Coordina- tion Branch Social Research and Univer- sity Affairs Division Hull, Quebec K1A 0H4 | Donat Savoie (819) 997-9120 | Prediction and monitoring Mitigation and compensation | None specified |
| Indian and Northern Affairs Northern Environmental Pro- tection Directorate Hull, Quebec K1A 0H4 | Ted Langtry Assistant Director (819) 997-9090 (Responsible for funding through NOGAP) | Improvements in administra- tive procedures Prediction and monitoring | Arctic marine oil spill program(AMOP) Cumulative impacts |
| Indian and Northern Affairs Environmental Studies Revolv- ing Fund Renewable Resources and Northern Env't Branch Hull, Quebec K1A 0H4 | Dr. O. H. Loken Director (819) 991-1992 | Prediction and monitoring | Prediction of iceberg season severity on East Coast envi- ronment Oil spill testing in the Beaufort Sea |
| Natural Sciences and Engi- neering Research Council of Canada Ottawa, Ontario K1A 1H5 | J. E. Halliwell Director Research Grants Directorate (613) 995-5833 | Prediction and monitoring Risk analysis | Impact of urban development on groundwater quality |
| Social Sciences and Human- ities Research Council of Canada Ottawa, Ontario K1P 6G4 | Stephen Goban Director, Strategic Grants Division (613) 992-4301 | EIA/SIA management and decision making | Comparison of forest manage- ment policies (Ontario-Que- bec-New York) Wildlife management after the James Bay Agreement EA of development projects (influences of international and domestic law) |
| Provincial Agencies | | | |
| Alberta Environmental Research Trust J.J. Bowlen Bldg. 8th Floor 620 Seventh Ave. S.W. Calgary, Alberta T2P 0Y8 | J. Russell Secretary (403) 297-2360 | Prediction and monitoring Mitigation | Effects of increased salinity on rivers in Southern Alberta Aquatic habitat studies Foundry dust baghouse waste characterization |

| Future areas of Interest | Type of Funding Support | Funding Constraints (and other notes) |
|---|-------------------------|---|
| Risk assessment (social and physical aspects) | C,P,S | Health component; apply by Dec. 1 for next fiscal year |
| Hazardous waste cleanup of Indian communities Mercury pollution Acid rain impacts on Indian communities and effects on fishing and trapping opportunities | C | Application to Indian Affairs |
| None specified | S | Support facilities available at Igloo Lake and Inuvik (library, conference room facilities) |
| Applied research in support of regulatory management AMOP program Cumulative impacts | C | Must be oil and gas related to be cofunded under NOGAP; must have application to NWT and Yukon |
| Decided by committee (which includes representation from Environment Canada). | C | Relevance to oil and gas industry |
| Environmental toxicology Biotechnology Industrial processes and materials Ocean sciences Food and agriculture | G | Restricted to natural science and engineering disciplines, application deadlines of May 1, and Nov. 1 each year |
| Human context of science and technology | G | Apply by Oct. 1 for next fiscal year (April 1) |
| Primary interest in air, land and water resources; will review requests for SIA research | G | Relevance to Alberta environment; Oct. 1 deadline for applications |

TABLE 2 – Continued

| Agency | Contact | Area of Research Interest | Recent Projects |
|--|--|---|---|
| Alberta Energy and Natural Resources Reclamation Research Division 2nd Floor, Pacific Plaza 10909 Jasper Avenue Edmonton, Alberta T5J 3M8 | Dr. P. F. Ziemkiewicz Director (403) 427-8042 | Prediction and monitoring Mitigation Post-project evaluation | Effects of surface mining on groundwater Soil reconstruction for agriculture after mining |
| Alberta Environment Research Management Division 10405 Jasper Avenue Edmonton, Alberta T5J 3N4 | H. P. Sims Director (403) 427-3943 | Prediction and monitoring Risk analysis EIA management Improvement in administrative procedures Mitigation Post-project evaluation | Acid Deposition Research Program (ADRP) |
| Alberta Department of Forestry, Fish and Wildlife Division 9945-108 Street Edmonton, Alberta T5K 2G6 | Tom Mill Director, Fisheries (403) 427-6730 Robert Andrews Director, Wildlife (403) 427-9505 Ken Ambrock Habitat Branch (403) 427-9505 | Prediction and monitoring Mitigation and compensation | Humane trapping program Socio-economic aspects of wildlife use Waterfowl compensation program |
| Alberta Research Council 4445 Calgary Tr. S. Edmonton, Alberta T6H 5R7 | Dr. R. Fessenden Head, Terrain Sciences (403) 438-0555 | Prediction and monitoring Mitigation | Land farming of industrial wastes Contamination of groundwater from heavy oil development Technology for heavy metal analysis of soils |
| B. C. Ministry of Environment Planning and Assessment Branch Parliament Buildings Victoria, B.C. V8V 1X5 | J. O'Riordan Director (604) 387-4441 | Prediction and monitoring EIA management and decision making Mitigation and compensation Post-project evaluation | Acid rain impacts on terrestrial and aquatic biota Disposal of toxic wastes Wastewater treatment technology Recreational and commercial values of wildlife and fisheries resources |
| B.C. Research 3650 Wesbrook Mall Vancouver, B.C.. V6S 2L2 | Dr. John Leach Manager, Corporate R&D (604) 224-4331 | Prediction and monitoring Mitigation | Evaluation of socio-economic impacts of acid rain in eastern Canada Mapping of wetlands in B.C. using satellite data |

| Future areas of Interest | Type of Funding Support | Funding Constraints (and other notes) |
|---|-------------------------|--|
| Long-term monitoring of soil reconstruction Reclamation research for oil and gas industry | C | Reclamation research for coal, oil and gas industries |
| Pesticides Biotechnology Acid deposition Air quality / climatology Reclamation Geoscience Water treatment / waste management Water resources Environmental contaminants Environmental emergencies / risk assessment Environmental information | C | Federal / provincial agreement required for cofunding |
| North American Waterfowl Management Program | C,P,S | Relevance to Alberta |
| Disposal of Industrial and municipal wastes Surface water and groundwater resources Air quality studies Industrial plant decommissioning | C, P, S | Strong applied research component |
| Acid rain Waste management groundwater contamination Fisheries management Aquatic biology studies | C, P, S | |
| Acid rain control processes Industrial and hazardous waste utilization | P, S | Unlikely that funds available for cofunding but may be possible for program of mutual interest |

TABLE 2 – Continued

| Agency | Contact | Area of Research Interest | Recent Projects |
|---|--|---|---|
| Manitoba Research Council 2nd Floor, 155 Carlton Street Winnipeg, Manitoba R3C 3H8 | Dr. Erling Nyborg Executive Director (204) 945-8744 | Prediction and monitoring Mitigation Improvements in administrative procedures | PCB monitoring Monitoring of automobile emissions Stack emission controls for smelters Monitoring of contaminants in the food industry Alternate uses for effluents from food processing industries |
| Manitoba Department of Environment and Workplace Safety and Health Winnipeg, Manitoba R3C 3Z5 | Gerry Spiegl Director, Planning Research and Evaluation (204) 945-8443 or N. Brandson (EIA) (204) 945-7107 | Prediction and monitoring Improvements in administrative procedures Mitigation and compensation | PCB Incineration Review of environmental legislation in Manitoba (with EPS) |
| N.B. Department of Municipal Affairs and the Environment P.O. Box 6000 Fredericton, New Brunswick E3B 5H1 | Dr. David Besner Director (506) 453-2669 | EIA management and decision making | Seminar on EIA (with Dalhousie University) |
| New Brunswick Research and Productivity Council P.O. Box 6000 College Hill Road Fredericton, New Brunswick | Dr. Roy Boorman Executive Director (506) 452-8994 | Prediction and monitoring | NA ¹ |
| Newfoundland Department of Environment Environmental Assessment Division Elizabeth Towers, Elizabeth Avenue P.O. Box 4750 St. John's, Newfoundland A1C 5T7 | Michael Rigby A/Director (909) 576-2562 | Prediction and monitoring Mitigation Post-project evaluation | Spruce bud worm monitoring |
| Nova Scotia Department of the Environment 5151 Terminal Road P.O. Box 2107 Halifax, Nova Scotia B3J 3B7 | A. J. Crouse Director (902) 424-5300 | Prediction and monitoring EIA management and decision making | Sydney river environment quality as a result of mining activities Public perception of hazardous materials management |
| Nova Scotia Research Foundation P.O. Box 790 Dartmouth, Nova Scotia B2Y 3Z7 | Dr. D.E.T. Bidgood VP Applied Science (902) 424-8670 | Prediction and monitoring | Assimilation of oil in sediments |
| Ontario Ministry of Agriculture and Food Technology and Field Services 11th Floor, 801 Bay St. Toronto, Ontario M7A 2B2 | Dr. J. C. Rennie Assistant Deputy Minister (416) 965-6695 | Prediction and monitoring Mitigation | Monitoring of pesticide and herbicide residues Erosion control methods |

| Future areas of Interest | Type of Funding Support | Funding Constraints (and other notes) |
|--|-------------------------|--|
| Research relating to their facilities, i.e, Industry Technology Development Centre, Food Products Development Centre | P, S | No budget available for cofunding |
| Determined in discussions with Federal-Provincial Liaison Committee | C, P, S | Application to Manitoba |
| Seminars/workshops on EIA | P, S | Restricted to N.B. and seminars/workshops on EIA |
| Plant ecology Forest-related research Organic chemistry analysis | P,S | No budget available for cofunding |
| Cumulative EIA of multiple developments Post construction rehabilitation Strategies for Nfld. environment | P,S | Must have application to Nfld.; No budget available for cofunding at present |
| Sewage treatment for coastal communities (to improve ocean receiving water quality) | C,P,S | Must have application to N.S.; apply by September for next fiscal year (April 1) |
| Fate of pollutants in ocean environments | C,P,S | Must have application to Nova Scotia |
| Air and water environments analytical chemistry | C,P,S | Must have application to Nova Scotia |
| Soil conservation and management Integrated pest management | C,P,S | None identified; prefer application before April 1 but no rigid deadlines |

TABLE 2 – Continued

| Agency | Contact | Area of Research Interest | Recent Projects |
|---|--|--|---|
| Ontario Ministry of the Environment Policy and Planning Branch 12th Floor 135 St. Clair Ave. W. Toronto, Ontario M4V 1P5 | E. Piché Coordinator Research Coordination Unit (416) 965-0641 | Prediction and monitoring Risk analysis | Factors that influence assessments of health effects of air pollution Freshwater clams as monitors of the nearshore environment Hazardous organic chemicals in groundwater at Ontario's Landfills |
| Ontario Ministry of Natural Resources Fisheries Branch Whitney Block, Queen's Park Toronto, Ontario M7A 1W3 | Dr. J. A. MacLean Supervisor Fisheries Research Section (416) 832-2761 | Prediction and monitoring | Social response (user groups) to changes in regulations Attitudinal changes in response to changes in resource base Studies of sampling design/methods Life history models/community dynamics |
| Ontario Ministry of Natural Resources Wildlife Branch Whitney Block, Queen's Park Toronto, Ontario M7A 1W3 | D. W. Simkin Director (416) 965-4252 | Prediction and monitoring Mitigation | Wetland evaluation program |
| Ontario Research Foundation Sheridan Park 2395 Speakman Drive Mississauga, Ontario L5K 1B3 | Dr. W. Sowa Coordinator, Business Development (416) 822-4111 | Prediction and monitoring | Indoor air quality studies Monitoring of air emissions in Sarnia area Acid rain studies Stack sampling |
| Environment Quebec 3900 rue Morly Ste. Foy, Quebec G1X 4E4 | H. St. Martin Director of Research (418) 643-2073 | Prediction and monitoring Mitigation | Survey of environmental biotechnology in Quebec Treatment of pig wastes (with EPS) |
| Quebec Ministry of Agriculture and Fisheries 2700 rue Einstein Ste. Foy, Quebec G1P 3W8 | André Vézina ADM (418) 643-7762 or Jean Hébert Director of Research (418) 643-2459 | Prediction and monitoring | NA |
| Quebec Ministry of Energy, Mines and Resources Forest Division 200 Chemin Ste. Foy Ste. Foy, Quebec G1R 4X7 | Claude Godbout Director of Research (418) 643-7994 | Prediction and monitoring | Effects of pollutants on forest resources (especially maple dieback) |

| Future areas of Interest | Type of Funding Support | Funding Constraints (and other notes) |
|---|-------------------------|--|
| Air quality Water quality Waste management Analytical methodologies | G,C,P,S | None identified |
| Perception of industry and public (e.g., sport fishermen) of future environmental problems Determination of buffer areas around lakes and rivers (where no tree cutting allowed) | C,P,S | Relevance to Ontario fisheries and agency's priority areas; apply by Nov. 1 for next fiscal year (April 1) |
| Effects of forestry practices on moose Impact assessment of developments on wildlife Impacts of toxic chemicals on wildlife | C,P,S | Relevance to Ontario wildlife; apply by April for next fiscal year |
| No priority areas identified | P,S | None identified |
| Environmentally acceptable dredging techniques for deep water environments Report pending on priority areas for future research | C,P,S | Application to Quebec environment |
| Impacts of pesticides on water quality and soils Effects of acid rain on maple tree resources | C,P,S | Application to agriculture or fisheries in Quebec |
| None identified | C,P,S, | Application to forest resources in Quebec: apply by December for next fiscal year |

TABLE 2 – Continued

| Agency | Contact | Area of Research Interest | Recent Projects |
|---|---|---|--|
| Quebec Ministry of Recreation, Game and Fish Wildlife Branch 150 est boul. St. Cyrille Quebec City, Quebec G1R 4Y3 | Gilles Barras Director General (418) 644-9376 | Prediction and monitoring Mitigation | Acid rain effects on freshwater fisheries |
| Quebec Ministry of Recreation, Game and Fish Socio-Economics and Research Service 150 est boul. St. Cyrille Quebec City, Quebec G1R 4Y3 | Jacques Auger Director (418) 644-1361 | Prediction and monitoring Mitigation | National socio-economic survey of Canadian fishermen |
| Saskatchewan Department of Environment Coordination and Assessment Branch 3085 Albert St. Regina, Saskatchewan S4S 0B1 | R. E. Walker Director (306) 787-6171 | Prediction and monitoring Mitigation Post-project evaluation | Environmental sensitivities and reclamation alternatives related to oil and gas developments |
| Industry | | | |
| Canadian Electrical Association Suite 580, 1 Westmount Square Montreal, Quebec H3Z 2P9 | Dr. E. Ezer Director, Research and Development (514) 937-6181 | Prediction and monitoring EIA management and decision making Mitigation | Development of a generic EA method for hydro facilities Mitigative measures for Canadian hydro facilities |
| Canadian Petroleum Association 633-6th Ave S. W. Calgary, Alberta 2TP 2Y5 | Ian R. Smyth Executive Director (403) 269-6721 | Prediction and monitoring Mitigation EIA management and decision making | Acid deposition research program Land farming of oily sludges Incineration of industrial wastes Good waste management practices in the petroleum industry Development of sulphur dust monitors No dispersion models |
| Domtar Inc. 395 Boul. de Maisonneuve O. Montreal, Quebec H3C 3M1 | R. McLean Manager, Environmental Services (514) 457-6810 | Mitigation | Testing of effluent treatment systems for the pulp and paper industry |
| Dow Chemical of Canada Ltd. Sarnia, Ontario N7T 7K7 | M. Baldwin Head, Research and Development (519) 339-3603 | Prediction and monitoring Mitigation | Treatment of leachate from waste sites (with Environment Canada) |

| Future areas of Interest | Type of Funding Support | Funding Constraints (and other notes) |
|---|-------------------------|--|
| Acid rain impacts Sport fisheries quotas | C,P,S | Application to recreation, fish and/or wildlife |
| Quotas for sportfishing Effects of liming Quebec lakes to reduce acid rain impacts | C,P,S | Application to Quebec environment; apply by May or June for next fiscal year (April 1) |
| None identified | C,P,S | Relevance to Saskatchewan |
| Technology transfer in EIA to provincial utilities | C | EIA research for hydro and thermal generation |
| Environmental information programs related to the petroleum industry | C | Application to petroleum exploration, production and pipelining |
| Bacteria control in effluent waters | C,P,S | Application to pulp and paper industry |
| Industrial waste management | C,P,S | Must be of environmental interest to Dow Chemical |

TABLE 2 – Continued

| Agency | Contact | Area of Research Interest | Recent Projects |
|--|--|---|---|
| Gulf Canada Resources Incorporated 401-9 Ave. S.W. Calgary, Alberta T2P 2H7 | Millard Wright Chairman Environmental Research Advisory Committee (403) 233-4000 | Prediction and monitoring Mitigation | Sulphur removal and soil reclamation |
| Institute for Chemical Science and Technology P.O. Box 2717 Sarnia, Ontario N7T 7V9 | Bill Stadelman Director (Toronto) (416) 425-4126 | Prediction and monitoring Mitigation | Land farming of industrial waste sludges |
| Interprovincial Pipe Line Limited P.O. Box 48 1 First Canadian Place Toronto, Ontario M5X 1A9 | A. Ramsey Right-Of-Way Manager (416) 365-5669 | Prediction and monitoring Mitigation and compensation Post-project evaluation | Effects of pipeline construction on stream crossings. |
| Petroleum Association for Conservation of the Environment (PACE) 1202- 275 Slater St. Ottawa, Ontario K1P 5H9 | W. J. Hogg General Manager (613) 236-9122 | Prediction and monitoring Risk analysis | Trace organics in refinery effluents Persistence of PAHs in soil Clean-up methods for oil-contaminated stream banks |
| Union Gas Limited 50 Keil Drive North Chatham, Ontario N7M 5M1 | Ian Moncrieff Environmental Planner (519) 352-3100 | Mitigation | Agricultural rehabilitation of disturbed lands Cost/benefit study on EIAs for pipelines (with EPS) |
| Public Interest Groups | | | |
| Canada West Foundation 1123-333-7 Avenue S.W. Calgary, Alberta T2P 2Z1 | Dr. David Elton President or Nancy Sanford Administrative Officer (403) 264-9535 | EIA management and decision making | Water resource management in Western Canada Environmental and socio-economic factors associated with coal industry in Western Canada |
| Donner Canadian Foundation Box 122 Toronto Dominion Centre Toronto, Ontario M5K 1H1 | D. S. Rickerd President (416) 869-1091 | Prediction and monitoring Risk analysis Mitigation and compensation | Minimata disease in Quebec (mercury effects) Environmental mediation Acid rain studies Great Lakes pollution |
| Ducks Unlimited Canada 1190 Waverley Street Winnipeg, Manitoba R3T 2E2 | D. S. Morrison Executive Vice-President (204) 477-1760 | Mitigation | |
| Laidlaw Foundation 203-60 St. Clair Ave E. Toronto, Ontario M4T 1N5 | Nathan Gilbert Executive Administrator (416) 964-3614 | Mitigation | Coalition on acid rain Funding of Great Lakes Centre Great Lakes water issues |

| Future areas of Interest | Type of Funding Support | Funding Constraints (and other notes) |
|--|-------------------------|---|
| Waste management and disposal | C | Application to Gulf resource projects; non project-specific studies geared more toward Canadian Petroleum Association |
| Industrial waste disposal in the chemical and petroleum processing industry Environmental impact and control of industrial air and water plumes | C | Application to chemical and/or petroleum processing industry |
| Impacts of linear development on agricultural lands | C | Application to Canadian pipeline industry. |
| Obtain direction from association members (no priority areas stated) | C | Restricted to research involving environment and occupational health in petroleum industry |
| Environmental policy and practices handbook for pipelines Waste management for synthetic lubricants, PCBs, etc. | C | Relevance to Union Gas; apply by December 1 for next fiscal year |
| Water resource management Use of marginal lands for agricultural production Socio-economic impacts of development in Western Canada | G | Application to Western Canada |
| None specified | G | None specified |
| Marsh management, development and restoration | G,C,P | Marsh management; work primarily with prairie habitat in Manitoba, Saskatchewan and Alberta |
| Conservation | G | Would like to discuss prior to any commitment |

TABLE 2 – Continued

| Agency | Contact | Area of Research Interest | Recent Projects |
|---|---|--|---|
| Richard Ivey Foundation 618 Richmond Street London, Ontario N6A 5J9 | S. McLean Research Officer (519) 673-1280 | EIA management and decision making Mitigation | Wetland studies Purchase of natural areas for preservation Hazardous waste management for small industry (guide book) |
| Sir Joseph Flavelle Foundation c/o National Trust Co. Ltd. 21 King Street East Toronto, Ontario M5C 1B3 | P. J. Sewell Secretary (416) 361-4095 | Mitigation | Conservation authority studies |
| World Wildlife Fund Canada 201-60 St. Clair Ave. East Toronto, Ontario M4T 1N5 | Stephen Price VP Conservation (416) 923-8173 | Prediction and monitoring Risk analysis Mitigation | Wildlife toxicology studies |
| Academic Institutions | | | |
| McGill University 845 Sherbrooke St. W. Montreal, Quebec H3A 2T5 | Dr. Gordon McLaughlin Dean of Research (514) 392-8245 | Prediction and monitoring | Microclimate effects on permafrost and distribution Environmental effects of snow cover |

¹ C = contract; G = grant; NA = not available; P = personnel; S = space.

| Future areas of Interest | Type of Funding Support | Funding Constraints (and other notes) |
|---|---|--|
| Wetlands Wildlife management Protection of endangered species | G | Must have application to S.W. Ontario and be steered by a registered charitable organization |
| Conservation studies | G | Project must take place in Ontario; cofunding only with Ontario-based agencies (e.g., regional office of federal agency) |
| Conservation of wildlife Reintroduction of endangered wildlife species | C | Must be wildlife oriented applied research (no funds available for conferences or seminars) |
| Snow, permafrost, and biological studies at Schefferville | Personnel and lab facilities at Schefferville | Must be related to programs of interest to Centre for Northern Studies |

3. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

A number of conclusions can be drawn as a result of this survey.

- Federal agencies, provincial agencies and industry associations are the most promising potential funding sources for EIA/SIA research of a non project-specific nature.
- Interest by private companies in EIA/SIA research is primarily of a project-specific nature, although some companies have expressed a willingness to participate in cofunding of non project-specific studies. The latter interest is usually by companies that are not represented by an industry association having an environmental research component.
- Private foundations and national wildlife organizations are the most promising sources of funding in the public interest group sector.
- Universities generally have no funds for co-operative EIA/SIA research efforts. However, they can provide a significant role by offering staff and laboratories where available.
- Significant additional potential funding sources were identified during this survey (Appendix A-3) and it is believed that this list can be expanded even further.
- Survey results indicate that waste management is currently a high priority area in the industrial sector as noted in Table 2.

- A telephone survey tends to restrict the extent of details readily available, particularly with regard to amounts available for funding and identification of future priority areas for research. However, the general topic of "funding" is a sensitive and sometimes confidential issue and, in many cases, it may not be possible (or cost-effective) to glean further information, even if given the time for a written response.

Recommendations

As a result of the survey, we recommend that the following steps be taken:

- In view of the recent research funding survey initiated by the Canadian Council of Resource and Environment Ministers, it would be advisable to communicate with this Council prior to any further studies.
- A number of new potential funding sources for EIA/SIA research were identified during this survey (Appendix A-3) and consideration should be given to expanding the survey to include these and other known potential funding sources.
- Since waste management has become an important issue in recent years, it would be beneficial to add industries such as Tricil to any future contact list.
- Computerization of the results in this report would provide flexibility in accessing and updating the data by agency type, area of research interest, project type, and so forth.

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- Environment Canada. 1978. *Environment Source Book: A Guide to Environmental Information in Canada*. Environment Canada, Ottawa.
- Environmental Conservation Service. *Baseline Studies Program, Fiscal Year 1984-85*. Lands Directorate, Environment Canada, Ottawa.
- Government of Alberta. 1984. *Who to Contact for Research Funding Assistance from the Alberta Government in Agriculture, Engineering and Natural Sciences*. Edmonton, Alberta.
- Government of Ontario. 1984. *Inventory of Research and Development Projects*. Policy and Planning Branch, Ministry of the Environment, Toronto, Ontario.

APPENDIX A-1

PRELIMINARY CONTACT LIST

| Federal Government (21 agencies) | Provincial Government (20 agencies) | Industry (11 agencies) | Public Interest Groups (12 agencies) | Academic Institutions (8 universities) |
|---|---|--|--|---|
| Land Resource Research Institute, Agriculture Canada | Alberta Environmental Research Trust | Canadian Electrical Association | Alberta Wildlife Foundation | Kananaskis Centre for Environmental Research, University of Calgary |
| Canadian Forestry Service Agriculture Canada | Alberta Environment | Canadian Forestry Association | Canada West Foundation | Concordia University, Montreal |
| Environmental Protection Branch, Energy, Mines & Resources | Alberta Research Council | Canadian Gas Association | Canadian Environmental Law Research Foundation | Institute for Resources & Environmental Studies, Dalhousie University |
| Natural Resources Division Environment Canada (Parks) | B.C. Ministry of Environment | Canadian Petroleum Association | Conservation Council of Ontario | Centre de recherches en aménagement et en développement, Université Laval |
| Environmental Impact Systems Division, Environment Canada | B.C. Research | Petroleum Association for Conservation of the Environment (PACE) | Ducks Unlimited Canada | Centre for Northern Studies and Research, McGill University |
| Atmospheric Environment Service, Environment Canada | Manitoba Research Council | Institute for Chemical Science & Technology | Federation of Associations on the Canadian Environment | Centre de recherche en sciences de l'environnement, (CERSE) Université du Québec à Montréal |
| Ecological Research & Int. Programs Division, Lands Directorate, Environment Canada | Manitoba Department of Environment | Gulf Canada | World Wildlife Fund | University of Waterloo |
| Canadian Environmental Advisory Council, Environment Canada | Manitoba Environment Council | Petro-Canada | Gladys and Merrill Muttart Foundation | University of Guelph |
| Fish Habitat Management Branch, Fisheries and Oceans Canada | New Brunswick Department of Environment | Dow Chemical | Donner Canadian Foundation | |
| Ocean Science Affairs Branch Fisheries and Oceans Canada | New Brunswick Research & Productivity Council | TransCanada Pipelines | Sir Joseph Flavelle Foundation | |
| Resource Development Impacts, Indian & Northern Affairs Canada | Newfoundland Department of Environment | Union Gas | Richard Ivey Foundation | |
| Social Research and University Affairs, Indian & Northern Affairs Canada | Nova Scotia Department of Environment | | Laidlaw Foundation | |
| Northern Environmental Protection Directorate, Indian & Northern Affairs Canada | Nova Scotia Research Foundation | | | |
| Environmental Studies Revolving Fund, Indian & Northern Affairs Canada | Ontario Ministry of Environment | | | |
| Natural Sciences and Engineering, Research Council of Canada | Ontario Research Foundation | | | |
| National Research Council of Canada | Ontario Ministry of Natural Resources | | | |

| Federal Government (21 agencies) | Provincial Government (20 agencies) | Industry (11 agencies) | Public Interest Groups (12 agencies) | Academic Institutions (8 universities) |
|---|--|---------------------------|---|---|
| Social Sciences and Humanities Research Council of Canada | Environment Quebec | | | |
| Medical Research Council of Canada | Quebec Energy, Mines & Resources | | | |
| National Health Research & Development Program Health & Welfare Canada | Quebec Agriculture & Fisheries | | | |
| Canadian Council of Environment and Resource Ministers | Saskatchewan Department of Environment | | | |
| Federal Environment Assessment Review Office | | | | |

APPENDIX A-2

FINAL CONTACT LIST

| Federal Government (19 agencies) | Provincial Government (26 agencies) | Industry (11 agencies) | Public Interest Groups (12 agencies) | Academic Institutions (4 universities) |
|---|---|--|--|---|
| * Land Resource Research Institute, Agriculture Canada | † Alberta Environmental Research Trust | † Canadian Electrical Association | * Alberta Wilderness Association | * Concordia University, Montreal |
| † Canadian Forestry Service, Agriculture Canada | † Alberta Energy and Natural Resources | * Canadian Forestry Association | † Canada West Foundation | † Centre for Northern Studies and Research, McGill University |
| † Environmental Protection Branch, Energy, Mines and Resources | † Alberta Environment | * Canadian Gas Association | * Canadian Environmental Law Research Foundation | * University of Waterloo |
| † Natural Resources Division Parks Canada | † Alberta Department of Forestry | † Canadian Petroleum Association | * Conservation Council of Ontario | * University of Guelph |
| † Environmental Impact Systems Div., Environment Canada | † Alberta Research Council | † Domtar (Quebec) | † Ducks Unlimited Canada | |
| † Atmospheric Environment Service, Environment Canada | † B.C. Ministry of Environment | † Petroleum Association for Conservation of the Environment (PACE) | * Federation of Associations on the Canadian Environment | |
| † Ecological Research & Int. Programs Division, Lands Directorate, Environment Canada | † B.C. Research | † Institute for Chemical Science & Technology | † World Wildlife Fund | |
| † Fish Habitat Management Branch, Fisheries and Oceans | † Manitoba Research Council | † Interprovincial PipeLine | * Gladys and Merrill Muttart Foundation | |
| † Fisheries Research Directorate, Fisheries and Oceans | † Manitoba Department of Environment | † Gulf Canada | † Donner Canadian Foundation | |
| † Resource Development Impacts, Indian and Northern Affairs Canada | † New Brunswick Department of Municipal Affairs and Environment | † Dow Chemical | † Sir Joseph Flavelle Foundation | |
| † Social Research and University Affairs, Indian and Northern Affairs Canada | † New Brunswick Research & Productivity Council | † Union Gas | † Richard Ivey Foundation | |
| † Northern Environmental Protection Directorate, Indian and Northern Affairs Canada | † Newfoundland Department of Environment | | † Laidlaw Foundation | |
| † Environmental Studies Revolving Fund, Indian & Northern Affairs Canada | † Nova Scotia Department of Environment | | | |
| † Natural Sciences and Engineering Research Council of Canada | † Nova Scotia Research Foundation | | | |

| Federal Government (19 agencies) | Provincial Government (26 agencies) | Industry (11 agencies) | Public Interest Groups (12 agencies) | Academic Institutions (4 universities) |
|---|--|---------------------------|---|---|
| † National Research Council of Canada | † Ontario Ministry of Agriculture and Food | | | |
| † Social Sciences and Humanities Research Council of Canada | * EA Branch, Ontario Ministry of Environment | | | |
| † National Health Research & Development Program, Health and Welfare Canada | † Policy and Planning Branch, Ontario Ministry of Environment | | | |
| * Public Works Canada | † Ontario Research Foundation | | | |
| † Federal Environmental Assessment Review Office | † Fisheries Branch, Ontario Ministry of Natural Resources | | | |
| | † Wildlife Branch, Ontario Ministry of Natural Resources | | | |
| | † Environment Quebec | | | |
| | † Quebec Energy, Mines & Resources | | | |
| | † Quebec Agriculture & Fisheries | | | |
| | † Wildlife Branch, Quebec Recreation, Game and Fish | | | |
| | † Socio-economics & Research Service, Quebec Recreation, Game and Fish | | | |
| | † Saskatchewan Department of Environment | | | |

* No resources for cofunding

† Interest in cofunding

APPENDIX A-3

ADDITIONAL POTENTIAL FUNDING SOURCES*

| Federal Agencies | Contact | Phone |
|--|---|----------------|
| International Joint Commission | R.L. Thomas Director | (519) 256-7821 |
| Canadian Wildlife Service | Dr. G.H. Finney Chief, Program Co-ordination and Research Division | (819) 997-1362 |
| Pesticides Division, Agriculture Canada | Wayne Ormrod, Director or Jan Taylor, A/Director | (613) 992-2114 |
| Environmental Studies Division, Indian and Northern Affairs Canada | Dr. David Stone | (819) 997-0045 |
| Native Economy and Socio- economic Agreements, Indian and Northern Affairs Canada | Robert Sterling | (819) 994-6821 |
| Public Review Division, Indian and Northern Affairs Canada | Don Bissett | (819) 997-9333 |
| Natural History Research Program, Parks Canada | Dr. Bruce Leeson | (403) 292-4438 |
| Ontario Soil and Water Program Regional Development Branch Agriculture Canada | Nelson Ball Director General | (416) 973-8172 |
| Prairie Farm Rehabilitation Administration, Regina, Saskatchewan | H.M. Hill Director General | (306) 780-5081 |
| Medical Research Council, Ottawa | Dr. Slotin, Director | (613) 990-7705 |
| Provincial Agencies | | |
| Forest Research Branch, Alberta Forest Service | J. Soos Director | (403) 962-8700 |
| Office of Coal Research and Technology, Alberta Department of Energy | | (403) 427-8042 |
| Research Division, Alberta Agriculture | J.P. Mahone, Director | (403) 422-1382 |
| Energy Conservation and Renewable Energy Research, Alberta Department of Energy | J. Kleta, Director | (403) 427-2983 |
| Recreation, Parks and Wildlife Foundation, Edmonton | Executive Director | (403) 420-1345 |

* This list is not intended to be a comprehensive list of additional potential funding sources but could be used as a starting point for any additional funding surveys.

Provincial Agencies

| | | |
|---|--|--|
| Alberta Environmental Centre | Dr. R.S. Weaver Executive Director | (403) 632-6761 |
| Alberta Oil Sands Technology and Research Authority | Registrar | (403) 427-7623 |
| Coal Association of Canada | R.T. Marshall, President | (403) 262-1544 |
| Energy Resources Conservation Board (Alberta) | V. Millard Chairman | (403) 297-8266 |
| B.C. Energy, Mines and Resources | Dennis O'Gorman (Energy) Ray Crook (Mines) Bob Durie (Petroleum) | (604) 387-3392 (604) 387-3787 (604) 387-3485 |
| Delta Waterfowl and Wetlands Research Station, Portage La Prairie, Manitoba | Bruce Batt Scientific Director | (204) 239-1900 |
| Newfoundland Department of Forest Resources and Lands | George Ross or Gerald Fleming | (709) 637-2284 (709) 637-2349 |
| Nova Scotia Department of Mines and Energy | | (902) 424-4161 |
| Forest Resources Group Ontario Ministry of Natural Resources | Ken Armson Executive Co-ordinator | (416) 965-4319 |

Industry

| | | |
|---|---|----------------|
| Canadian Pulp and Paper Research Institute | Dr. Berman Toxicologist | (514) 630-4100 |
| Canadian Chemical Producers Association | J.M. Belanger President | (613) 237-6215 |
| TransCanada Pipelines | R. Milne, Vice-President Environment | (416) 869-2825 |
| Consumer's Gas | G. Bolubash | (416) 495-5738 |
| TransNorthern Pipelines | G. Robinson | (416) 924-3353 |

Public Interest Groups

| | | |
|--|--|----------------|
| Canadian National Sportsman Fund | Dr. Wm. J. Walsh | (416) 593-7333 |
| Federation of Ontario Naturalists | M. Singleton General Manager | (416) 444-8419 |
| Canadian Wildlife Federation | K.A. Brynaert Executive Vice President | (613) 725-2191 |
| Nature Conservancy of Canada | L. Mayeda Executive Director | (416) 486-1011 |
| Pollution Probe | C.F.W. Isaacs Executive Director | (416) 926-1907 |
| MacLean Foundation | Secretary | (416) 964-6802 |
| Ontario Association of Landscape Architects | Glen Harrington | (416) 294-8282 |

APPENDIX B

EIA/SIA RESEARCH FUNDING TELEPHONE QUESTIONNAIRE

1. AGENCY NAME: _____

ADDRESS: _____

2. CONTACT: _____

POSITION: _____ PHONE: (_____) _____

3. GENERAL POLICY OF AGENCY RE FUNDING OF EIA/SIA RESEARCH:

4. TYPES OF NON PROJECT-SPECIFIC ENVIRONMENTAL/SOCIAL IMPACT ASSESSMENT STUDIES FUNDED BY AGENCY IN LAST THREE YEARS:

| Type | Approximate Level of Funding | | |
|--|------------------------------|-------|-------|
| | 1984 | 1985 | 1986 |
| a) Prediction and Monitoring | _____ | _____ | _____ |
| b) Risk Analysis | _____ | _____ | _____ |
| c) EIA Management and Decision Making | _____ | _____ | _____ |
| d) Improvements in Administrative Procedures | _____ | _____ | _____ |
| e) Mitigation and Compensation | _____ | _____ | _____ |
| f) Post-Project Evaluation | _____ | _____ | _____ |

Others: _____

5. FUTURE AREAS OF EMPHASIS IN EIA/SIA RESEARCH

6. INTEREST IN PARTICIPATING IN:

- | | | |
|---------------------------------|-----------|----------|
| a) Cofunding of Projects | Yes _____ | No _____ |
| b) Parallel funding of Projects | Yes _____ | No _____ |

7. FUNDING SUPPORT AVAILABLE:

Grants _____ Personnel _____ Contracts _____ Space _____

Other: _____

8. FUNDING CONSTRAINTS (e.g., restriction to certain groups [graduate students] or provinces, type of research, etc.)

9. EXTENT OF POTENTIAL FUNDING:

<10,000 _____ 10,000–25,000 _____ >25,000–50,000 _____

>50,000–100,000 _____ >100,000–500,000 _____ >500,000–1,000,000 _____

10. WHAT IS YOUR POLICY ON APPLICATION DEADLINES FOR COFUNDING?

11. CONTACT PERSON TO SECURE FUNDING:

PHONE: (_____) _____

12. DO YOU KNOW IF ANY OF YOUR CLIENTS BENEFITING FROM EIA/SIA RESEARCH WOULD BE WILLING TO PROVIDE FUNDING?

YES _____ NO _____

If yes, identify:

| Agency Name | Contact | Phone |
|-------------|---------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

13. NAMES OF OTHER AGENCIES POSSIBLY INTERESTED IN SUPPORTING EIA/SIA RESEARCH

| Agency Name | Contact | Phone |
|-------------|---------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

14. DO YOU KNOW OF ANY ORGANIZATIONS WHO HAVE PERFORMED A SIMILAR RESEARCH FUNDING SURVEY TO THIS ONE:

YES _____ NO _____

If yes, identify:

| Agency Name | Contact | Phone |
|-------------|---------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

APPENDIX C

PRELIMINARY SURVEY RESULTS

| Type of Agency | Interest in Cofunding | No Funding Available | Total |
|------------------------|-----------------------|----------------------|-------|
| Federal Agencies | 3 | 2 | 5 |
| Provincial Agencies | 3 | 1 | 4 |
| Industry Associations | 3 | 2 | 5 |
| Public Interest Groups | 1 | 3 | 4 |
| Academic Institutions | 1 | 3 | 4 |
| | <hr/> | <hr/> | <hr/> |
| Total | 11 | 11 | 22 |

Federal Agencies

Land Resource Research Institute, Agriculture Canada

Environmental Protection Branch, Energy, Mines and Resources*

Northern Environmental Protection Directorate, Indian Affairs and Northern Development*

Environmental Studies Revolving Fund, Indian Affairs and Northern Development*

National Research Council of Canada

Provincial Agencies

New Brunswick Department of Environment

Policy and Planning Branch, Ontario Ministry of Environment*

Ontario Research Foundation*

Nova Scotia Research Foundation Corporation*

Industry Associations

Canadian Electrical Association*

Canadian Forestry Association

Canadian Gas Association

Canadian Petroleum Association*

Petroleum Association for Conservation of the Environment (PACE)*

Public Interest Groups

Conservation Council of Ontario

Ducks Unlimited Canada*

Federation of Associations on the Canadian Environment

Canadian Environmental Law Research Foundation

Academic Institutions

Concordia University, Montreal

McGill University (Centre for Northern Studies and Research)*

University of Waterloo

University of Guelph

* Interest in Cofunding

APPENDIX D

DRAFT TERMS OF REFERENCE FOR CCREM COMMITTEE ON RESEARCH CO-ORDINATION

Foreword

The Canadian Council of Resources and Environment Ministers (CCREM) established the Committee on Research Co-ordination at its annual meeting in Toronto in 1985. This Committee was established in recognition of the need for better co-ordination of federal and provincial environmental research and development programs. The Committee will initially focus on environmental protection research and development. In the longer term, the Committee will promote greater non-governmental involvement in environmental protection research and development and improved co-ordination and management of environmental research and development in Canada. The terms of reference for the Committee are listed below.

Terms of Reference

- Co-ordinate federal and provincial environmental protection research and development programs through identification of opportunities for joint planning of programs and co-operation in research.
- Promote environmental protection research and development in non-governmental sector through co-ordination/co-operation with government programs.
- Identify research and development needs through appropriate consultation in the environmental protection field.
- Recommend priorities for joint federal and provincial environmental protection research and development initiatives.
- Identify national and international sources of technical and scientific information and promote methods for information and technology transfer.
- Prepare workplans and special reports, and provide advice to CCREM on an annual basis as requested.

Reporting Relationships

The Research Co-ordination Committee reports to the Executive Committee of Co-ordinators.

Membership

Each member government decides how it can best be represented on the Committee. The Committee is comprised of participating and corresponding members.

Chairperson

The Chairperson is selected from the participating members. In accordance with CCREM practices, the Chairperson normally serves on a rotational basis.

The Chairperson works in collaboration with the Executive Director of CCREM since both have obligations to the Council with regard to achieving objectives.

Role of CCREM Staff

The role of CCREM staff with regard to all Council committees and working groups is to foster all Council activities and the achievement of its objectives.

The Executive Director is an ex-officio member of CCREM committees and works closely with the Chairman to promote the success of the programs.

Meetings are organized by Secretariat staff in consultation with the Chairman and committee members. Several factors are considered in the organization of a meeting: the need to meet, the location, the physical arrangements, and the catering and accommodation requirements.

Agenda items are solicited from Committee members. Agendas are then prepared and circulated by Secretariat staff in concert with the Chairman.

Minutes are recorded by the Secretariat staff who help to promote the implementation of decisions.

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